

REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-37 are in this case. Claims 1-22 were withdrawn under a restriction requirement as drawn to a non-elected invention. Claims 23-37 have been rejected. Claims 25-26 and 37 have now been canceled. Claims 23, 27, 31 and 37 have now been amended. Claims 38 and 39 have now been added

35 U.S.C. § 112, First Paragraph, Rejections

The Examiner has rejected claims 23-37 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, has possession of the claimed invention. The Examiner's rejections are respectfully traversed. Claims 23, 27, 31 and 37 have now been amended.

The Examiner points out that the specification while being enabling for implantation of unmodified cells and ex-vivo gene transfer, wherein the implanted cell is transformed prior to transplantation, does not reasonably provide enablement for in vivo gene transfer, wherein the implanted cell is transformed following implantation.

In order to expedite prosecution of this case, Applicant has elected to amend independent claims 23 and 36 to now recite limitations, which restrict these claims to a method which utilizes ex-vivo gene transfer.

Thus, claim 23 has now been amended to recite:

A method of modifying the electrophysiological function of an excitable tissue region of an individual, the method comprising:

- (a) providing cells expressing at least one polypeptide forming a functional ion channel or transporter and at least one polypeptide forming gap junctions; and
- (b) implanting said cells into the excitable tissue region, such that each implanted cell forms:
 - (i) gap junctions with at least one cell of the excitable tissue region; and

(ii) a functional ion channel or transporter;
thereby modifying the electrophysiological function of the excitable tissue region.”

and claim 36 has now been amended to recite:

“A method of modifying the electrophysiological function of an excitable tissue region of an individual, the method comprising:

- (a) transforming cells with an exogenous polynucleotide encoding at least one polypeptide forming a functional ion channel or transporter and/or at least one polypeptide forming gap junctions; and
- (b) implanting said cells into the excitable tissue region of the individual, such that each implanted cell forms:
 - (i) gap junctions with at least one cell of the excitable tissue region;
and
 - (ii) a functional ion channel or transporter;
thereby modifying the electrophysiological function of the excitable tissue region of the individual.”

Thus, Applicant believes to have overcome Examiner’s rejections in this case.

35 U.S.C. § 112, Second Paragraph, Rejections

The Examiner has rejected claims 25-27, 31 and 37 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiners rejections are respectfully traversed. Claims 25-26 and 37 has now been canceled, rendering moot the Examiner's rejection. Claim 31 has now been amended.

With respect to claims 25-27, 31 and 37 Examiner points out that these claims are indefinite in their recitation of “capable of”, which is merely a potential property and not an actual property.

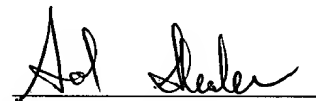
Claim 31 has now been amended to recite:

“wherein each implanted cell forms said functional ion channel or transporter

following induction.”,
to thereby overcome the Examiner's rejection with respect to this claim. Applicant wishes to point out that claim 27 does not include the phrase “capable of” rendering moot the Examiner's rejection in this case.

In view of the above amendments and remarks it is respectfully submitted that claims 23-37 are now in condition for allowance. Prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read 'Sol Sheinbein', is written over a horizontal line.

Sol Sheinbein
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